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NOTES ON NORTH AMERICAN CHERNETIDÆ.

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The North American genera of *Chernectidæ*, so far as recognized, may be separated by the following table:—

1	{ Cephalothorax with a transverse suture ; mandibles small (<i>Cheliferinæ</i>).....	2
	{ Cephalothorax without a transverse suture ; mandibles larger (<i>Obisinæ</i>).....	3
2	{ Four eyes.....	<i>Garypus</i>
	{ Two eyes.....	<i>Chelifer</i>
	{ No eyes.....	<i>Chelanops</i>
3	{ Mandibles with apophysis or stylet....	5
	{ Mandibles without apophysis.....	4
4	{ Fingers straight ; cephalothorax wider in front than behind	<i>Chthonius</i>
	{ Fingers curved ; cephalothorax narrower in front than behind	<i>Obisium</i>
5	{ Eyes inconspicuous or absent.....	<i>Atemnus</i>
	{ Four distinct eyes.....	<i>Olpium</i>

The two subfamilies may, I believe, be farther separated by the fact that the *Cheliferinæ* have the dorsal scutæ of the abdomen divided by a median line ; while in the *Obisinæ* the scutæ are entire. *Chernes pallidus*, Banks, which was described as having the median line wanting, really has a median line, though on account of the light colour of the abdomen it is very difficult to trace. The *Cheliferinæ* have an apophysis or small stylet near the end of the mandibular finger. In the more typical *Obisinæ* this is lacking, but in *Atemnus* and *Olpium* it is present. Clubbed hairs are frequently present in the *Cheliferinæ*, while they are not found in our forms of *Obisinæ*.

Chelifer, Geoff.

In this genus the palpi are usually much longer than in *Chelanops*. A new species from Florida may be called

Chelifer floridanus, nov. sp.

Length, 2.3 mm. Colour, dark reddish brown; palpi very long, second joint with a swollen projection behind bearing two spinous processes; third joint (femur) very slender, with the pedicel somewhat distinct, twice as long as the cephalothorax is broad at anterior furrow; fourth joint a little shorter than the preceding one, very much larger at the tip than at base; claw not near as long as second and third joints together; hand not broad, fingers not much longer than hand; palpi, except fingers, with clubbed hairs. Cephalothorax granulated, with larger rounded bodies scattered over its surface; a few spines on each side. Abdomen about twice the length of the cephalothorax, widest behind the middle; lateral ends of the scutæ projecting behind and pointed; scutæ separated by a narrow line, wider behind; body with clubbed hairs. The palpi are very much longer and slenderer than in any other described American form; the tip of the fourth joint reaches much beyond the end of the abdomen. Southern Florida, E. A. Schwarz. A peculiar form from Texas may be called

Chelifer texanus, nov. sp.

Length, 2.5 mm. Colour, abdomen and legs whitish or yellowish; dorsal scutæ brownish yellow; cephalothorax and palpi reddish, not very dark. Palpi short; second joint gibbous behind, with a longer pedicel than usual; third joint distinctly pedicellate, inner margin nearly straight, outer margin convex, not over twice the length of the second; fourth pedicellate, a little shorter and larger than the preceding, inner margin strongly convex, outer margin slightly so; hand oblong oval, not very broad, and longer than the fingers. Palpi furnished with very small and delicate clubbed hairs, except on the fingers. Cephalothorax tapering and rounded in front, with delicate clubbed hairs, no spines, no larger granules. Abdomen oblong, dorsal scutæ narrowly separated by a line, with both clubbed and simple hairs.

In some points of structure this species resembles a *Chelanops* more than a *Chelifer*, but the eyes are well developed; the palpi are shorter than usual in *Chelifer*, and the dorsal scutæ do not cover the abdomen as completely as in most *Chelifers*. Brazos Co., Texas.

Chelanops (Chernes).

As shown by Simon *Chernes*, Menge is *Chelanops*, Nicolet. A new species from Long Island may be described as follows :—

Chelanops tristis, nov. sp.

Length 2. mm. Colour pale reddish-yellow, soft parts white. Second joint of palpi with two projections behind ; third joint pedicellate, nearly cylindrical, twice as long as second ; fourth scarcely shorter than the third, pedicellate, inner margin very convex ; hand, pedicellate, broad, inner margin very convex, outer but slightly so ; fingers as long as hand, curved ; whole palpi furnished with only simple hairs. Body with simple hairs and a few somewhat clubbed ones near the anterior part of the cephalothorax. Legs nearly white. Abdomen oblong oval, dorsal scutæ widely separated, the dark spot much nearer the inner than the outer end. On the sea shore of Long Island, New York.

The described species of *Chelanops* may be separated by the following table :—

1	{ Palpi with clubbed hairs.....	2
	{ Palpi with only simple hairs.....	3
2	{ Palpi as long as body, large, very pale.....	<i>pallidus</i> .
	{ Palpi not as long as body, small, dark.....	<i>sanborni</i> .
3	{ Fingers almost one-half shorter than hand.....	<i>acuminatus</i> .
	{ Fingers as long or scarcely shorter than the hand.....	4
4	{ Dark spots in dorsal scutæ much nearer median than lateral end, scutæ widely separated.....	<i>tristis</i> .
	{ Dark spots at about the middle of dorsal scutæ, scutæ narrowly separated.....	<i>oblongus</i> .

Garypus, Koch.

In this genus the cephalothorax is quite suddenly narrowed in front of the eyes. It has not been recorded from the U. S. Several specimens of a species of this genus were found at Ithaca, N. Y., in the crevices of a rocky cliff. The form may be described as follows :—

Grypus granulatus, nov. sp.

Length, 1.7 mm.; colour, abdomen yellowish, legs white, palpi and cephalothorax pale reddish. Palpi longer than the body ; second joint short, very convex in front ; third not very long, short pedicellate, gradually growing thicker ; fourth predicellate, shorter than the preceding,

becoming near end a little larger than the femur ; claw about as long as femur ; hand not very broad, tapering towards base of fingers, which are a little shorter than the hand, and curved. Palpi, except fingers, granulated, and provided with simple hairs. Cephalothorax distinctly narrowed in front of eyes, anterior margin straight. Abdomen broad, seven scutæ separated by a line, first scuta not divided. Legs short, hind legs not very stout. Cephalothorax and scutæ of abdomen granulated, with simple hairs. The eyes slightly projecting and almost touching. Legs granulated, hind pairs but little larger than front pairs. Found in crevices of a cliff at Ithaca, N. Y.

Chthonius, Koch.

The species of this genus are seldom taken in houses. They are not rare under wet or damp leaves in the woods. They can move quite rapidly. Three species have been described from the U. S., two of them from caves. The description given by Hagen for *Chth. pennsylvanicus* was quite short. A fuller description of this and two other forms may be added.

Chthonius pennsylvanicus, Hagen.

Length, 1.9 mm. Colour, brownish with scattered silvery spots on abdomen, mandibles reddish, palpi pale reddish, legs white. Palpi slender, longer than the body ; third joint (femur) reaching one-third its length beyond the cephalothorax, nearly cylindrical, slightly narrowed in middle, largest near tip ; fourth joint about one-third the length of the third joint ; hand not broad, tapering towards base of fingers, the latter straight about one and one-half times length of hand ; femur longer than fingers. Mandibles very large, about as long as cephalothorax. Cephalothorax much wider in front than behind, about as wide in front as long. Hind eye about twice its diameter from front eye, which is about on the front margin. Abdomen narrow at base, becoming broader near tip, twice as long as cephalothorax. Hind pairs of legs very much larger than front pairs ; fourth pair much longer than body, tip of femur nearly reaching to the end of abdomen. Penn., N. Y.

Chthonius longipalpis, nov. sp.

Length, 1.9 mm. Colour pale yellowish, fingers and claws of mandibles a little reddish ; cephalothorax and scutæ slightly brownish, abdomen with scattered silvery spots. Palpi long and slender, longer than body ; femur very slender, slightly largest near tip ; fourth joint short, conical ; claw slender ; hand narrow, tapering toward base of fingers,

which are straight and a little longer than hand; femur longer than fingers. Mandibles large, not quite as long as cephalothorax. Cephalothorax not much wider in front than behind, not near as much so as in *Chth. pennsylvanicus*; hind eye about once or one and one-fourth its diameter from front eye, which is a little separated from anterior margin of cephalothorax. Abdomen narrow at base, growing wider near tip, end rounded, more than twice the length of the cephalothorax. Hind pairs of legs larger than front pairs; hind legs extending beyond abdomen, but the tip of the tibiae rarely reach the end of the abdomen. Under leaves in woods, Long Island, N. Y.; Ithaca, N. Y.; Washington, D. C.

Chthonius moestus, nov. sp.

Length, 1.3 mm. Colour, more reddish than preceding, silvery spots not as distinct. Palpi short not reaching end of abdomen; femur short, cylindrical; fourth joint conical; hand very short, fingers straight, about twice the length of hand, about as long as femur. Mandibles large, tapering, not as long as cephalothorax. Cephalothorax quite a little broader in front than behind, more so than in *Chth. longipalpis*; eyes close together, about touching. Hind pair of legs short, not reaching beyond abdomen. Ithaca, N. Y., under stones in spring.

The described species of North American *Chthonius* may be separated by the following table:—

1	{ Cave species, two or no eyes	2
	{ Not cave species, four eyes ..	3
2	{ Hind legs about twice as long as the abdomen.....	<i>packardi</i> .
	{ Hind legs not much longer than the abdomen....	<i>coecus</i> .
3	{ Eyes close together, almost touching.....	<i>moestus</i> .
	{ Eyes distinctly separated.....	4
4	{ Hind eyes about twice its diameter from front eye, ceph. much wider in front than behind.....	<i>pennsylvanicus</i>
	{ Hind eye not twice its diameter from front eye, ceph. but little wider in front than behind..	<i>longipalpis</i> .

Atemnus, Can.

The eyes in this genus are indistinct or wanting; the mandibular apophysis is present, the dorsal scutæ softer than usual, and the fourth joint of the palpi is longer than is usual in the *Obisinae*. A species from California may be called

Atemnus californicus, nov. sp.

Length, 2.1 mm. Colour, cephalothorax and palpi reddish-yellow, abdomen and legs nearly white. Cephalothorax longer than broad, sides

nearly parallel until just before the anterior margin where they converge slightly, anterior margin very obtusely angled. Mandibles about half the length of cephalothorax, finger with a small and weak apophysis. No eyes. Cephalothorax smooth. Palpi very long; the basal joint narrower than usual; second joint slender, as long as mandibles, a very small, conical projection on outer side near distal end; third joint (femur) slender, nearly as long as cephalothorax and mandibles together, not pedicellate, gradually growing thicker from the base; fourth joint a little shorter than the third, very long pedicellate, pedicel almost one-third the length of the joint, gradually growing thicker, both sides convex, the outer more convex toward the distal end, the inner more convex toward basal end, broader than femur; hand quite long pedicellate, oblong oval, not very broad; fingers much longer than hand, curved toward the tip, with a great many very fine teeth; inner side of femur and inner side of hand and base of fingers granulated. Body and appendages with simple hairs. Abdomen wider than cephalothorax, widest behind the middle, not very long; hind legs long, reaching much behind the abdomen, other legs a little longer than usual. California, Dr. Cooper Curtice.

Olpium, Koch.

This genus is related to *Atemnus*, but has distinct eyes. It has not been recorded from U. S. A species from the District of Columbia may be called

Olpium rufulum, nov. sp.

Length, 2.5 mm. Colour, cephalothorax and palpi red, dorsal scutæ yellowish, legs white, venter yellowish. Palpi slightly longer than the body, second joint with a small obtuse projection behind; third joint (femur) pedicellate, about as long as cephalothorax, nearly cylindrical; fourth joint shorter, long pedicellate, both sides convex, inner side more convex toward base; hand pedicellate, nearly as long as fourth joint, not very broad, tapering slightly toward base of fingers; fingers curved, as long as hand; femur and part of hand finely granulate. Cephalothorax smooth, one and one-half times as long as broad, sides nearly parallel, slightly contracted in front of eyes, anterior margin a little convex; eyes close together, anterior eye about its diameter from anterior margin; mandibles not one-half the length of cephalothorax, apophysis slender. Abdomen about one and three-fourths the length of cephalothorax, not much wider, widest in middle; fourth pair of legs about reaching end of abdomen. Body and appendages with long simple hairs.

Under a large stone, Washington, D. C., March.